

IN THE CLAIMS:

1. (Currently Amended) A machine tool particularly for the synchronous machining of workpieces, said tool being comprised of:

two or more spindle units (2,3), which run parallel in a machining unit for reception of tools[,], and

5 repositioning devices (V_x, V_y, V_z) for precise adjustment of the position of the spindle units (2,3) in relation to one another, preferably in all three directions x, y, and z of the orthogonal co-ordinate system in the machining unit (4), characterized in that wherein the repositioning devices (V_x, V_y) for displacing at least one of the spindle units (2,3) in at least one of the directions x and/or y consist of each comprise an eccentric bush (5,6), which can be 10 rotated about a central shaft (B1, B2) and locked and in which the spindle units (2,3) are mounted eccentrically, parallel to said central shaft (B1, B2).

2. (Currently Amended) A machine tool according to Claim 1, characterized in that wherein said repositioning devices (V_x, V_y, V_z) can be activated independently of each other and that the repositioning in each [[the]] machining plane (x, y)-each is executed by rotating said eccentric bushes (5,6) and is superposed in one of the two spindle units (2,3) by a 5 movement in z-direction.

3. (Currently Amended) A machine tool according to claim 1 any of the preceding Claims 1 or 2, characterized in that wherein the repositioning devices (V_x, V_y) attack

tangentially at the outer rim of said eccentric bushes (5,6).

4. (Currently Amended) A machine tool according to claim 1 any of the preceding Claims 1, 2 or 3, characterized in that wherein the repositioning devices (V_x, V_y, V_z) can be are driven one or more of mechanically, electrically, [[or]] and hydraulically.

5. (Currently Amended) A machine tool according to claim 1 any of the preceding claims, characterized in that wherein the repositioning devices (V_x, V_y) are comprised of retainer bolts (10) disposed parallel to the spindle axis and comprised of groove blocks (11) attacking said retainer bolts and being actuated by repositioning cylinders (12).

6. (Currently Amended) A machine tool according to claim 1 any of the preceding claims, characterized by further comprising a measuring system (15) for recording the repositioning path of the groove blocks (11) disposed at said repositioning cylinders (12).

7. (Currently Amended) A machine tool according to claim 1 any of the preceding claims, characterized in that wherein the repositioning path in said x, y direction lies in a range from 0.1 to 0.5 mm and in a range from 0.8 to 5 mm in a z-direction.

8. (Currently Amended) A machine tool according to claim 1 any of the preceding claims, characterized in that wherein the repositioning can be controlled and regulated with

an accuracy of < 1 µm.

9. (New) A machine tool for machining of workpieces, the machine tool comprising:

a machining unit;

a first spindle unit having adapted for reception of tools;

a second spindle unit adapted for reception of tools;

5 a first repositioning device for adjustment of a position of said first spindle unit in relation to said second spindle unit in three directions x, y, and z of the orthogonal co-ordinate system of said machining unit, said first repositioning device comprising a first eccentric bush connected to said machining unit and rotatable about a first central shaft and lockable in a position, said first spindle unit being mounted eccentrically in said first eccentric bush with a 10 first spindle shaft parallel to said first central shaft; and

a second repositioning device for adjustment of a position of said second spindle unit in relation to said first spindle unit in three directions x, y, and z of the orthogonal co-ordinate system of said machining unit, said second repositioning device comprising a second eccentric bush connected to said machining unit and rotatable about a second central shaft and lockable 15 in a position, said second spindle unit being mounted eccentrically in said second eccentric bush with a second spindle shaft parallel to said second central shaft.

10. (New) A machine tool according to claim 9, wherein said each repositioning device is activatable independently of the other and the repositioning in each machining plane is

executed by rotating said eccentric bushes and is superposed in one of the two spindle units by a movement in the z-direction.

11. (New) A machine tool according to claim 9, wherein the repositioning devices attack tangentially at the outer rim of said eccentric bushes.

12. (New) A machine tool according to claim 9, further comprising a repositioning device drive that is one of a mechanical drive, an electrical drive and a hydraulic drive.

13. (New) A machine tool according to claim 9, wherein the repositioning devices each include retainer bolts disposed parallel to a respective spindle axis and comprised of groove blocks acting on said retainer bolts and being actuated by repositioning cylinders.

14. (New) A machine tool according to claim 9, further comprising a measuring system for recording a repositioning path of groove blocks disposed at said repositioning cylinders.

15. (New) A machine tool according to claim 9, wherein each repositioning device defines a repositioning path in another x, y direction that lies in a range from 0.1 to 0.5 mm and in a range from 0.8 to 5 mm in said z-direction.

16. (New) A machine tool according to claim 9, wherein each repositioning device provides positional accuracy of < 1 μ m.